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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/348,575	07/07/1999	CARMELO ZACCONE	Q55017	5420

7590

12/30/2002

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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 12/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/348,575

Applicant(s)

ZACCONE ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/11/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 is/are allowed.
- 6) ☐ Claim(s) 1,5 and 10-15 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 6-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobbins (US 5,751,971).

Regarding claims 1 and 5, Dobbins teaches a method and apparatus for an Internet forwarding method (fig. 2), for forwarding internet packets from a host connected to the internet (fig. 2 box 16) towards a destination host (DH) (fig. 2 box 14, col. 5 lines 47 - 52), see also claims 14, connected to a private internet network (PNW), where said internet network (INW) and the PNW are coupled through at least one edge router (fig. 2 box 11), and where the DH is assigned a global internet address (col. 2 lines 41 - 57) characterized in that the forwarding of the internet packets is based only on the global internet address (directed broadcast address, Dobbins: col. 4 lines 12-15).

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***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins in view of Speakman (US 6,389,475) and Sosa.

Regarding claim 14, in addition to the limitations listed in claim 1, Dobbins teaches a router (fig. 2 box 12A,B) for use in a private internet network (fig. 2 box 11), internet packets being forwarded (col. 5 lines 47-48) from a destination host (fig. 2 box 13A) of said private internet network towards a host connected to the network or vice versa (fig. 2 Rest of Internet), said private internet network comprising at least one said router (fig. 2 box 12A,B) and at least one destination host (fig. 2 box 13A,B), each coupled to one of said at least one router and wherein said destination host is assigned a global internet address (col. 4 lines 15-15), said private network being coupled to said internet network through at least one edge

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router (fig. 2 box 15). The router (fig. 2 box 12A,B) comprises a message reception means, adapted to receive a multicast message containing said global internet address (fig. 3 element 35, col. 6 lines 40-45), see also claims 10, 13, 15.

Dobbins is silent on a multicast group updating means.

Speakman teaches a multicast group updating means, adapted to interpret the multicast message containing a global internet address and update a multicast group in order to establish a branch of a multicast tree (constructed and altered, col. 4 lines 19-24), see also claim 15.

Therefore it would have been obvious to one of ordinary skill in the art, having both Dobbins and Speakman before him/her and with the teachings [a] as shown by Dobbins, a router for use in a private internet network, internet packets being forwarded from a destination host of said private internet network towards a host connected to the network or vice versa, said private internet network comprising at least one said router and at least one destination host, each coupled to one of said at least one router and wherein said destination host is assigned a global internet address, said private network being coupled to said internet network through at least one edge router. The router comprises a message reception means, adapted to receive a multicast message containing said global internet

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address, and [b] as shown by Speakman, a multicast group updating means, adapted to interpret the multicast message containing a global internet address and update a multicast group in order to establish a branch of a multicast tree, to be motivated to modify the system of Dobbins by having the source (Dobbins: fig. 2 Rest of Internet) transmit multicast messages using IGMP (Speakman: col. 4 lines 15-16). This would improve the system by allowing a destination host to receive information without duplication of effort and without excess use of multicast addresses (col. 1 lines 41-52).

The combination of Dobbins and Speakman is silent on a multicast message forwarding means.

Sosa teaches a multicast message forwarding means / SMDS (pg. 1060 col. 2 lines 22-28).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Dobbins and Speakman and Sosa before him/her and with the teachings [a] as shown by the combination of Dobbins and Speakman, a router for use in a private internet network, internet packets being forwarded from a destination host of said private internet network towards a host connected to the network or vice versa, said private internet network comprising at least one said router and at least one destination host, each coupled to one of

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said at least one router and wherein said destination host is assigned a global internet address, said private network being coupled to said internet network through at least one edge router, a message reception means, adapted to receive a multicast message containing said global internet address, and a multicast group updating means, adapted to interpret the multicast message containing a global internet address and update a multicast group in order to establish a branch of a multicast tree, and [b] as shown by Sosa, a multicast message forwarding means / SMDS, to be motivated to modify the system of the combination of Dobbins and Speakman by adding the group addressing feature of SMDS to the forwarded packets. This modification can be performed in software. This would improve the system by providing a method for distributing routing updates and for file server discovery (pg. 1060 col. 2 lines 27-28).

Regarding claim 15, as previously stated in claim 1, Dobbins teaches an edge router (fig. 2 box 15).

Regarding claims 11 and 12, in addition to the limitations listed in claim 15, Speakman teaches a message reception and interpretation means adapted to receive a Resource Reservation Protocol message (protocol messages, col. 4 lines 19-24), a

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routing table updating means (fig. 2 box 250, col. 5 lines 59-65), and a message forwarding means (col. 5 lines 45-56).

Regarding claims 10 and 13, in addition to the limitations listed in claim 11, Dobbins teaches an assignment detection means and adjacent router notification means (echo request/reply, col. 4 lines 34-36).

Regarding claim 13, in addition to the limitations listed in claim 10, Speakman teaches a multicast subscription means (multicast distribution tree, col. 4 lines 19-24).

#### ***Allowable Subject Matter***

5. Claim 9 is allowed.

6. Claims 2-4, and 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 2, 6, and 9 nothing in the prior art of record teaches or fairly suggests a router daemon in combination with the other limitations of the claims. Regarding claims 3 and 7 nothing in the prior art of record teaches or fairly suggests notifying each router by sending a



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protocol message at assignment of a global Internet address in combination with the other limitations of the claims. Regarding claims 4 and 8, nothing in the prior art of record teaches or fairly suggests the edge router setting up the multicast groups in combination with the other limitations of the claims.

### ***Response to Arguments***

7. Applicant's arguments filed 12/11/02, regarding claims 1 and 5, have been fully considered but they are not persuasive. The applicant states "there is no unique/global IP address for the hosts 14 in Dobbins" (applicant pg. 13 lines 20-21) and "in Dobbins, it would be impossible to use the IP address alone to forward a packet from an edge router to a destination host" (applicant pg. 14 lines 1-2). The examiner disagrees; in the case of a broadcast message, all hosts (Dobbins: fig. 1 box 14) would be notified using the global IP address alone (directed broadcast address, Dobbins: col. 4 lines 12-15). The applicant refers to the work group identifier being required (applicant pg. 14 lines 12-15). However, work group identifiers are not required for broadcast messages.

8. Applicant's arguments with respect to claims 10-15 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Ronald Abelson  
Examiner  
Art Unit 2666

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December 23, 2002



DANG TON  
PRIMARY EXAMINER